Guidelines For Estimating
Cow-Calf Production Costs
Based on a 150 Head Cow Herd

Date: September, 2002

This guide is designed to provide you with planning information and a format for calculating costs of production of a cow calf enterprise. The production costs included in this enterprise budget are not intended as a cost study of the beef industry in Manitoba. Adjustments will be necessary when applying these figures to your own enterprise.

The budget estimates are based on a number of assumptions which are clearly defined in the supporting pages. Productivity and performance assumptions are based on data supplied by specialists as well as data collected from certain producers. Input costs are based on recommended practices and/or information obtained from producers. Good management is assumed in that a balanced ration is being fed, livestock are on a herd health program and handling facilities are included.

The guideline can be useful for comparison purposes. Comparison of costs at different levels of production can be made with other farms; the farm over time to track profits or losses; or comparing the plan with the actual production at the end of the planning period.

Disclaimer: This budget is only a guide and is not intended as an in depth study of the cost of production of the Manitoba cattle industry. Interpretation and utilization of this information is the responsibility of the user. If you require assistance with developing your individual budget, please contact your local MAF Farm Management Specialist or Livestock Specialist.

Cow-Calf Production Costs September, 2002
Based on a 150 Cow Herd

A. Operating Costs	Cost/Cow	Total Cost	Your Cost
1. Feed Costs			
1.01 Grain	9.25	1,388	
1.02 Hay	266.00	39,900	
1.03 Salt & Minerals	17.85	2,678	
Total Feed Cost	**$293.10**	**$43,966**	
2. Other Operating Costs			
2.01 Straw	22.00	3,300	
2.02 Veterinary Medicine & Supplies	19.98	2,997	
2.03 Breeding Costs	32.54	4,881	
2.04 Fuel, Maintenance & Repairs	26.67	4,001	
2.05 Utilities	9.67	1,451	
2.06 Marketing & Transportation	26.25	3,938	
2.07 Death Loss	11.00	1,650	
2.08 Manure Removal	10.00	1,500	
2.09 Insurance	9.81	1,472	
2.10 Herd Replacement	45.00	6,750	
2.11 Miscellaneous	5.00	750	
Subtotal Operating Costs	511.02	$76,656	
2.12 Operating Interest	14.05	2,108	
Total Operating Costs	**$525.07**	**$78,764**	
B. Fixed Costs			
3. Depreciation			
3.01 Buildings	12.72	1,908	
3.02 Machinery & Equipment	40.00	6,000	
4. Investment			
4.01 Buildings	3.82	572	
4.02 Machinery & Equipment	9.00	1,350	
4.03 Livestock	33.00	4,950	
4.04 Pasture Land & Fencing	50.14	7,520	
Total Fixed Costs	**$148.67**	**$22,300**	
Total Operating and Fixed Costs	**$673.75**	**$101,064**	
C. Labour	90.00	13,500	
Total Cost of Production	**$763.75**	**$114,564**	

Breakeven price	$/cwt	
A. Operating Costs	$98.19	
B. Operating & Fixed Costs	$125.99	
C. Operating, Fixed & Labour Costs	$142.82	

Breakeven Price $/cwt = Cost ÷ 93% calf crop ÷ calf weight (5.75cwt)

Disclaimer: This budget is only a guide and is not intended as an in-depth study of the cost of production of this industry. Interpretation and utilization of this information is the responsibility of the user. No liability for decisions based on this publication is assumed. If you require assistance with developing your individual budget, please contact your local MAF Office or the Farm Management Section in Winnipeg at 204-945-4937.

Assumptions

1. This budget outlines the cost of production for a cow calf operation with 150 cows, 6 bulls and 93% calf crop weaned.
2. Building and equipment are valued at new cost.
3. All feed is valued at market value.
4. Manure removal is contracted out.
5. Replacement heifers are valued at fair market value.
6. This budget assumes an average weaning weight of 575 lbs. (steer calves 600 lbs and heifer calves 550 lbs.)

Cow-Calf Production Worksheet

A. Operating Costs

1. Feed Costs

1.01 Barley (processed)

	2.0	lbs barley/cow/day	
x	60	days/year	
÷	48	lbs/bu	
x	$3.70	/bushel	
=	**$9.25**	**/cow**	

1.02 Hay (for cows)

	2.5	tons good quality	
x	$80.00	/ton	
=	$200.00	/cow	
	1.2	tons low quality	
x	$55.00	/ton	
=	$66.00	/cow	
Total =	**$266.00**	**/cow**	

1.03 Salt and Minerals

	35.0	lbs salt/cow/year	
x	$0.15	/lb	
=	$5.25	/cow	
	35.0	lbs mineral/cow/year	
x	$0.36	/lb	
=	$12.60	/cow	
Total =	**$17.85**	**/cow**	

2. Other Operating Costs

2.01 Straw

	1.0	tons/cow/year	
x	$22.00	/ton	
=	**$22.00**	**/cow**	

2.02 Veterinary Medicine & Supplies

Calf Medication

	$0.55	/calf blackleg	
x	93.0	% calf crop	
=	$0.51	/cow	

Cow Medication

	$2.30	/cow IBR	
+	$2.90	/cow Scourguard 3	
+	$7.50	/cow footrot,louse	
+	$0.64	/cow ADE	
=	$13.34	/cow	

Herd Health Program

	$100.00	/hour charge	
x	6	hours	
÷	150	cows	
=	$4.00	/cow	

Mileage

	$1.00	/km charge	
x	80	kilometres	
x	4	visits	
÷	150	cows	
=	$2.13	/cow	

Total	**=**	**$19.98**	**/cow**

2.03 Breeding Costs

Feed for Bulls

Hay

	4.0	tons good quality	
x	$80.00	/ton	
x	6	bulls	
÷	150	cows	
=	$12.80	/cow	

Barley		7.0	lbs barley/bull/day	
	x	120	days	
	÷	48	lbs/bu	
	x	$3.70	/bushel	
	x	6	bulls	
	÷	150	cows	
	=	$2.59	/cow	
Total	=	$15.39	/cow	

Straw for Bulls

	1.0	tons/bull/year	
x	$22.00	/ton	
x	6	bulls	
÷	150	cows	
=	$0.88	/cow	

Vet & Medicine for Bulls

	$55.00	semen test	
+	$15.00	total vet cost/bull	
x	6	bulls	
÷	150	cows	
=	$2.80	/cow	

Replacement of Bulls

	$2,500	bull cost	
-	$1,600	bull salvage value	
x	25.0	% replacement rate	
x	6	bulls	
÷	150	cows	
=	$9.00	/cow	

Investment in Bulls

	$2,500	bull cost	
+	$1,600	bull salvage value	
÷	2		
x	3.0	% investment rate	
x	6	bulls	
÷	150	cows	
=	$2.46	/cow	

Buildings & Pasture Costs for Bulls

	$50.14	/bull pasture cost	
x	6	bulls	
÷	150	cows	
=	$2.01	/cow	
Total =	**$32.54**	**/cow**	

2.04 Fuel, Oil, Repairs & Maintenance

Machinery

	$1,300	annual fuel cost	
+	$1,200	oil, repairs & maintenance	
÷	150	cows	
=	$16.67	/cow	

Buildings,Fences etc.

	$1,500	repairs & maintenance	
÷	150	cows	
=	$10.00	/cow	
Total =	**$26.67**	**/cow**	

2.05 Utilities

	$1,450	annual cost	
÷	150	cows	
=	**$9.67**	**/cow**	

2.06 Marketing & Transportation

Trucking

Calves

	140	calves	
x	575	lbs/calf	
x	$1.25	/cwt (trucking cost)	
÷	150	cows	
=	$6.68	/cow	

Cull Cows

	23	cull cows	
-	2	cows died	
x	1,350	lbs/cow	
x	$1.25	/cwt (trucking cost)	
÷	100	lbs/cwt	
÷	150	cows	
=	$2.36	/cow	

Selling Commission			
Calves		140	calves
	x	$15.75	/calf
	÷	150	cows
	=	$14.65	/cow
Cull Cows		23	cull cows
	-	2	cows died
	x	$18.25	/cow
	÷	150	cows
	=	$2.56	/cow
Total	**=**	**$26.25**	**/cow**

2.07 Death Loss

	x	$1,100	/cow investment
	x	1.0	% mortality rate
	=	**$11.00**	**/cow**

2.08 Manure Removal

		$1,500	annual removal cost
	÷	150	cows
	=	**$10.00**	**/cow**

2.09 Insurance

		$1,100	$/cow investment
	x	$0.50	/$100 capital
	÷	100	/100
	=	$5.50	/cow
		$120,156	building and equipment investment
	x	$0.50	/$100 capital
	÷	100	/100
	÷	150	cows
	=	$4.01	/cow
		$45.00	liability
	÷	150	cows
	=	$0.30	/cow
Total	**=**	**$9.81**	**/cow**

2.10 Herd Replacement

	$1,000	/replacement heifer	_____
-	$700	/cull cow	_____
x	15.00	% replacement rate	_____
=	**$45.00**	**/cow**	_____

2.11 Miscellaneous

	$750	total office expenses	_____
÷	150	cows	_____
=	**$5.00**	**/cow**	_____

2.12 Operating Interest

(Operating interest is charged on one half of the subtotal operating costs)

	$511.02	subtotal operating costs	_____
÷	2	average	_____
x	5.5	% operating interest	_____
=	**$14.05**	**/cow**	_____

Capital Costs

Buildings & Water System		
Windbreak Fence	$2,380	
Feedlot Fence	$2,392	
Calf Shelters	$6,144	
Handling Facilities	$3,500	
Calving Barn (30'x32')	$9,600	
Waterers (3 @ $ 1000)	$3,000	
Pasture watering system	$4,000	
Pasture water source	$3,000	
Gates	$840	
Round Bale Feeders	$900	
Well & Pressure System	$3,500	
Hydro (6 poles @ $400)	$2,400	
Storage Bins	$3,500	
Total Building Cost	**$45,156**	
Machinery & Equipment		
Miscellaneous Machinery	$5,000	
Tractor & Loader ($100,000 @30%)	$30,000	
Bale Shredder	$13,000	
Stock Trailer	$12,000	
Truck ($30,000 @ 50%)	$15,000	
Total Machinery & Equipment Cost	**$75,000**	
Total Bldg., Mach. & Equip.	**$120,156**	
Total Breeding Herd Value	**$165,000**	
Total Capital Investment	**$285,156**	

B. Fixed Costs

3. Depreciation $\frac{\text{Original Cost - Salvage Value}}{\text{Useful Life}}$

3.01 Buildings & Water System (not including pasture water system)

	$38,156	original cost
-	0	salvage value
÷	20	years useful life
÷	150	cows
=	**$12.72**	**/cow**

3.02 Machinery & Equipment

$75,000	original cost	
- $15,000	salvage value	
÷ 10	years useful life	
÷ 150	cows	
= **$40.00**	**/cow**	

4. Investment

Original Cost + Salvage Value x Investment Rate
2

4.01 Buildings

$38,156	original cost	
+ $0.00	salvage value	
÷ 2	average	
x 3.0	% investment rate	
÷ 150	cows	
= **$3.82**	**/cow**	

4.02 Machinery & Equipment

$75,000	original cost	
+ $15,000	salvage value	
÷ 2	average	
x 3.0	% investment rate	
÷ 150	cows	
= **$9.00**	**/cow**	

4.03 Livestock

$1,100	/cow	
x 3.0	% investment rate	
= **$33.00**	**/cow**	

4.04 Pasture

A. Marginal Land Investment

Land 5.00	acres/cow	
x $180.00	/acre	
x 3.0	% investment rate	
= $27.00	/cow	

Fence				
		$13,440	total fence investment	
	+	$0	salvage value	
	+	2	average	
	x	3.0	% investment rate	
	÷	150	cows	
	=	$1.34	/cow	
Pasture Water System				
		$7,000	system & source	
	+	$0	salvage value	
	+	2	average	
	x	3.0	% investment rate	
	÷	150	cows	
	=	$0.70	/cow	
Total Investment	=	$29.04	/cow	
Depreciation				
Fence		$13,440	total fence investment	
	-	$0	salvage value	
	+	20	years useful life	
	÷	150	cows	
	=	$4.48	/cow	
Water system		$7,000	system & dugout	
	-	$0	salvage value	
	+	20	years useful life	
	÷	150	cows	
	=	$2.33	/cow	
Total	=	$6.81	/cow	
Taxes		5.00	acres/cow	
	x	$2.00	/acre	
	=	$10.00	/cow	
Total	=	**$45.86**	**/cow**	
B. Crop Land Investment				
Land		3.00	acres/cow	
	x	$350	/acre	
	x	3.0	% investment rate	
	=	$31.50	/cow	

Fence				
		$8,640	total fence investment	
	+	$0	salvage value	
	÷	2	average	
	x	3.0	% investment rate	
	÷	150	cows	
	=	$0.86	/cow	
Pasture Water System				
		$7,000	system & source	
	+	$0	salvage value	
	÷	2	average	
	x	3.0	% investment rate	
	÷	150	cows	
	=	$0.70	/cow	
Total Investment	=	$33.06	/cow	
Depreciation				
Fence		$8,640	total fence investment	
	-	$0	salvage value	
	÷	20	years useful life	
	÷	150	cows	
	=	$2.88	/cow	
Water system		$7,000	system & source	
	-	$0	salvage value	
	÷	20	years useful life	
	÷	150	cows	
	=	$2.33	/cow	
Total	=	$5.21	/cow	
Taxes				
		3.0	acres/cow	
	x	$5.50	/acre	
	=	$16.50	/cow	
Total	=	**$54.78**	**/cow**	

C. Crown Land:

Depreciation

Fence		9.38	miles of fence
	x	$1,920	/mile
	=	$18,000	fence cost
	-	$1,800	salvage value
	÷	20	years useful life
	÷	150	cows
	=	$5.40	/cow
Water system		$7,000	system & source
	-	$0	salvage value
	÷	20	years useful life
	÷	150	cows
	=	$2.33	/cow
Total Depreciation	=	$7.73	/cow

Investment

Fence		$18,000	fence cost
	+	$1,800	salvage value
	=	$19,800	total invested
	÷	2	average
	x	3.0	% investment rate
	÷	150	cows
	=	$1.98	/cow
Pasture Water System			
		$7,000	system & source
	+	$0	salvage value
	÷	2	average
	x	3.0	% investment rate
	÷	150	cows
	=	$0.70	/cow
Total Investment	=	$2.68	/cow

Land Rental (includes taxes)

		$246	/quarter, rental rate
	÷	12	cows/quarter
	=	$20.50	/cow
Total	=	**$30.91**	**/cow**

D. P.F.R.A.: Community Pasture Grazing

Cows

	$0.36	cost/cow/day	
x	140	days	
=	$50.40	/cow	

Calves

x	$20.00	/calf/season	
x	140	calves on pasture	
÷	150	cows on pasture	
=	$18.60	/cow	
Total	**$69.00**	**/cow**	
Average (A,B,C,D)	**$50.14**	**/cow**	

C. Labour

	9.0	hours/cow/year	
x	$10.00	/hour	
=	**$90.00**	**/cow**	

For further information contact your local Manitoba Agriculture and Food office.

Prepared by:

Peter Blawat
Farm Management

John Corbey
Farm Management

Bob Gwyer
Farm Management

Michael Buchen
Feedlot Specialist

John Popp
Livestock Specialist

Keith Kyle
Farm Management

Dennis Hodgson
Farm Management

Cow-Calf Operating Facilities